

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P547075

Luminaire Tested: **FMR-24-4-LD4-3LO-35-UNV-81-88-EDD**

Issue Date: 6/15/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P547075
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 6/15/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-24-4-LD4-3LO-35-UNV-81-88-EDD
Description: 2X4 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

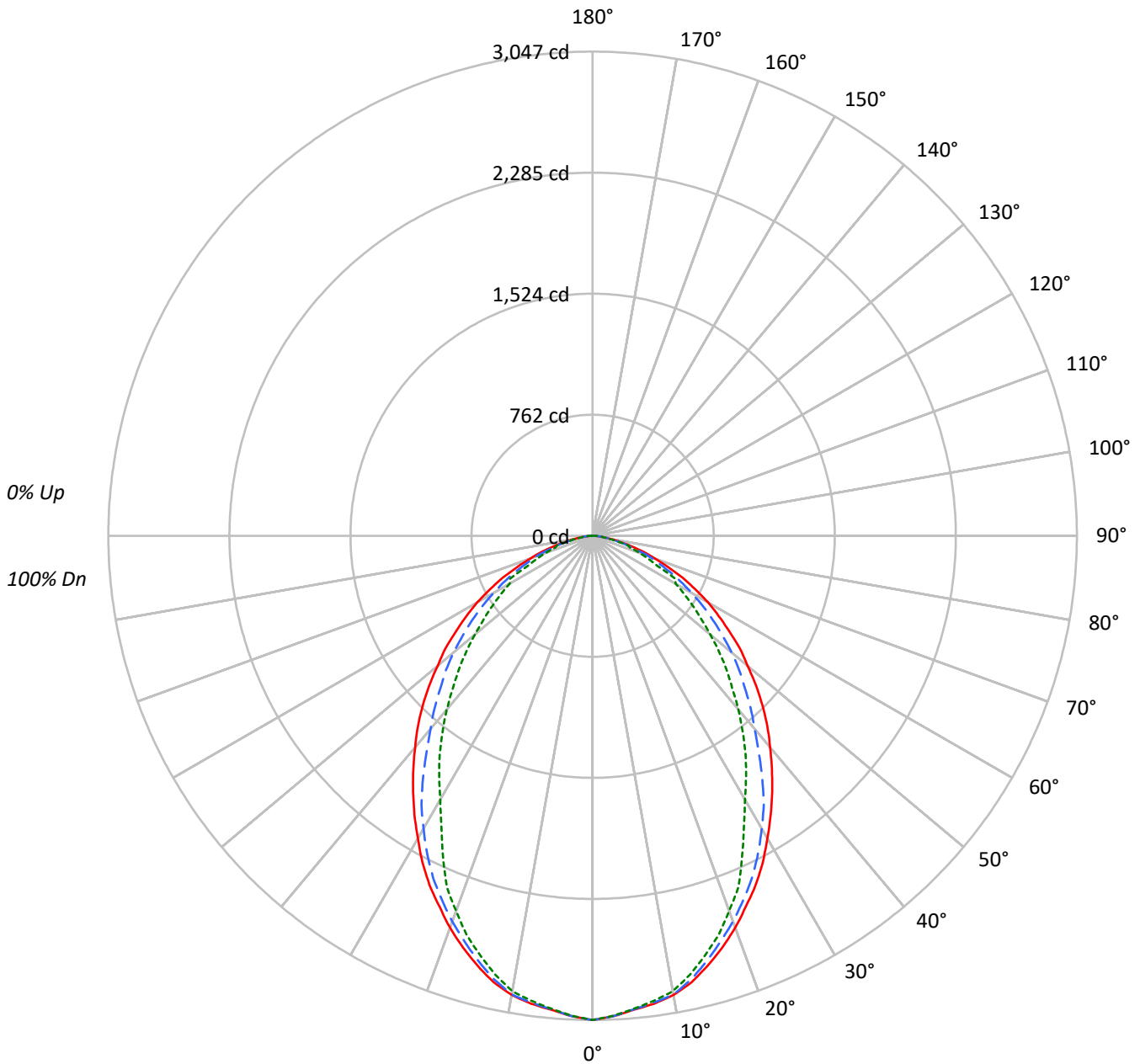
Lumens per Lamp: N/A
Luminaire Lumens: 5982.0 lumens
Efficiency: N/A
Efficacy: 85.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4100	4100	4100
5°	4044	4039	4035
10°	4009	4004	3976
15°	3901	3862	3808
20°	3758	3697	3596
25°	3603	3525	3305
30°	3415	3306	2977
35°	3234	3055	2754
40°	3050	2784	2506
45°	2876	2574	2266
50°	2662	2389	2020
55°	2463	2165	1810
60°	2256	1934	1621
65°	1985	1693	1436
70°	1635	1483	1220
75°	1300	1135	1190
80°	873	819	764
85°	543	653	761



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	283.6	4.7
10°-20°	778.5	13.0
20°-30°	1077.7	18.0
30°-40°	1149.2	19.2
40°-50°	1048.4	17.5
50°-60°	821.3	13.7
60°-70°	535.3	8.9
70°-80°	237.2	4.0
80°-90°	50.9	0.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2139.8	35.8
0°-40°	3289.0	55.0
0°-60°	5158.6	86.2
0°-90°	5982.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5982.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3047	3047	3047	3047	3047	
5°	2994	2991	2991	2987	2987	284
15°	2801	2801	2772	2744	2734	787
25°	2427	2413	2374	2290	2226	1114
35°	1969	1955	1860	1719	1677	1231
45°	1511	1480	1353	1240	1191	1164
55°	1050	1018	923	814	772	942
65°	624	588	532	542	451	614
75°	250	232	218	208	229	268
85°	35	39	42	46	49	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3047.2	3047.2	3047.2	3047.2	3047.2
2.5°	3026.0	3026.0	3026.0	3022.5	3022.5
5°	2994.3	2990.8	2990.8	2987.3	2987.3
7.5°	2969.7	2966.1	2962.6	2959.1	2952.0
10°	2934.4	2934.4	2930.9	2913.3	2909.8
12.5°	2878.1	2874.5	2860.4	2835.8	2828.7
15°	2800.6	2800.6	2772.4	2744.2	2733.6
17.5°	2716.0	2712.5	2677.3	2649.1	2635.0
20°	2624.4	2617.4	2582.2	2536.4	2511.7
22.5°	2522.3	2522.3	2480.0	2420.1	2395.4
25°	2427.2	2413.1	2374.3	2289.8	2226.4
27.5°	2317.9	2296.8	2254.5	2134.8	2060.8
30°	2198.2	2187.6	2127.7	1972.7	1916.4
32.5°	2085.4	2067.8	2004.4	1842.4	1796.6
35°	1969.2	1955.1	1860.0	1719.1	1676.8
37.5°	1852.9	1835.3	1715.6	1602.8	1550.0
40°	1736.7	1715.6	1585.2	1483.1	1426.7
42.5°	1627.5	1599.3	1472.5	1363.3	1299.9
45°	1511.2	1479.5	1352.7	1240.0	1190.7
47.5°	1395.0	1366.8	1250.6	1134.3	1078.0
50°	1271.7	1247.0	1141.4	1025.1	965.2
52.5°	1169.5	1130.8	1028.6	912.4	863.1
55°	1049.8	1018.1	923.0	813.7	771.5
57.5°	940.6	908.9	820.8	718.6	683.4
60°	838.4	792.6	718.6	630.6	602.4
62.5°	725.7	690.5	627.0	553.1	588.3
65°	623.5	588.3	531.9	542.5	450.9
67.5°	510.8	493.2	443.9	394.5	380.5
70°	415.7	394.5	376.9	324.1	310.0
72.5°	331.1	310.0	285.3	257.2	246.6
75°	250.1	232.5	218.4	207.8	229.0
77.5°	172.6	165.6	155.0	144.4	140.9
80°	112.7	109.2	105.7	102.2	98.6
82.5°	66.9	66.9	66.9	66.9	66.9
85°	35.2	38.7	42.3	45.8	49.3
87.5°	21.1	21.1	24.7	28.2	31.7
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)